

Since its creation June 21, 1860, the U.S. Army Signal Corps has addressed the Army's communications needs. Albert James Myer, an Army surgeon and the first Chief Signal Officer, first developed a visual communications system for the Army called "wigwag." Simple, mobile and lightweight, the wigwag system used flags during the day and torches at night.

W i g w a g proved well suited for New Mexico's rugged terrain during the Navajo Campaign of 1860-1861. COL Thomas Fauntleroy, Myer's commander, said, "[Wigwag] demonstrated not only the practical usefulness of field signals, but that they can be used under any of the contingencies of frontier warfare."



Wigwag was the first communications "system."

While visual signaling was a mainstay of communication in the field during the Civil War, the Army also used the electric telegraph. The U.S. military telegraph employed civilian operators, its supervisors received commissions in the Quartermaster Corps, and Secretary of War Stanton controlled it. Myer knew the telegraph was quicker than visual signaling and tried to get it under Signal Corps control. Unable to do this, he introduced a mobile telegraph train to improve communication in the field.

These telegraph trains consisted of two wagons, copper wire and iron lances for stringing temporary field lines called "flying telegraph line." Myer contracted with a civilian company to construct a model train using a dial indicator and galvanic battery to transmit messages. Myer's contract began a tradition of civilian-military cooperation in developing Signal equipment that continues to this day.

From 1870-1891, the Signal Corps established and operated the nation's first weather service. During the Spanish-American War and Philippine Insurrection, the Signal Corps continued innovations in Army communications such as combat photography, telephone, an im-

proved telegraph switchboard and renewed use of balloons. From 1900-1903, signalmen constructed the Washington-Alaska Military Cable and Telegraph System. However, traditional land-wire telegraph proved to be ineffective in the Alaskan climate, so Chief Signal Officer Adolphus Greely introduced wireless telegraph to Alaska. Then in 1904, signalmen laid a 1,300-mile cable linking Sitka, Alaska, and Washington, D.C., creating for the first time a direct link between the Alaskan system and commercial telegraph in the United States.

The Signal Corps pioneered military aviation, including use of balloons. In 1908, the Wright brothers made initial tests flights of the Army's first aircraft, which was built to Signal Corps specifications. Aviation remained a Signal Corps responsibility until 1918.

Development in Signal equipment continued during the two world wars. During World War I, the Signal Corps experimented with radio and cooperated with the communications industry to perfect radio tubes. A new Signal Corps Laboratory at Camp Vail, N.J. (later renamed Fort Monmouth), developed small aircraft radiotelephones, the superheterodyne circuit (vital



Orville Wright tests the military's first airplane over Fort Myer, Va., in September 1908.

to the development of AM and FM radio) and radar. Signalmen extensively used pigeons for frontline communications in World War I. Before and during World War II, the Signal Corps was heavily involved in developing radar. A Signal Corps mobile radar set detected the Japanese aircraft that bombed Pearl Harbor. Development of tactical FM radio continued and led to the production of reliable, easy-to use and mobile equipment.

At the beginning of the Korean War (1950-1953), Signal equipment was old, used and in short supply. Cable was unreliable and telephone not practical. Mountainous terrain hindered signals, and relay trucks were easy targets for the enemy. To improve communications, the Signal Corps introduced new equipment such as very high frequency line-of-sight radio. It was flexible and mobile - it could keep up with the infantry's rapid moves - and provided communication over the mountains, rivers and enemy. It could carry teletype messages. One lesson learned from Korea was that the Signal Corps needed a speedier, more reliable, protected and stable communications system that could withstand a single breakdown. For this reason the Signal Corps abandoned the battlefield's Single Axis Communications System for the Army Area Communications System, and later the Area Common User